



UNITED STATES DEPARTMENT OF COMMERCE
Patent and Trademark Office

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APPLICATION NUMBER	FILING DATE	FIRST NAMED APPLICANT	ATTORNEY DOCKET NO.
09/824,671	4/4/01	Mashiko	N02-12993/C/HH

EXAMINER	
Greene	
ART UNIT	PAPER NUMBER
1724	15

DATE MAILED:

INTERVIEW SUMMARY

All participants (applicant, applicant's representative, PTO personnel):

- (1) Jason Greene (3) Phillip Miller
(2) Duane Smith (4)

Date of Interview 10 July 2003

Type: ☐ Telephonic ☐ Televideo Conference ☒ Personal (copy is given to ☐ applicant ☒ applicant's representative).

Exhibit shown or demonstration conducted: ☐ Yes ☐ No If yes, brief description:

Agreement ☒ was reached. ☐ was not reached.

Claim(s) discussed: 1, 5, 17

Identification of prior art discussed: EP 0811479 A2 and the Tsuchi reference

Description of the general nature of what was agreed to if an agreement was reached, or any other comments: An agreement was reached that the proposed amendment would distinguish the claims from the prior art if the term heat weld is removed or if Applicants can provide evidence that calendering is different from heat welding.

(A fuller description, if necessary, and a copy of the amendments, if available, which the examiner agreed would render the claims allowable must be attached. Also, where no copy of the amendments which would render the claims allowable is available, a summary thereof must be attached.)

☐ It is not necessary for applicant to provide a separate record of the substance of the interview.

Unless the paragraph above has been checked to indicate to the contrary, A FORMAL WRITTEN REPLY TO THE LAST OFFICE ACTION IS NOT WAIVED AND MUST INCLUDE THE SUBSTANCE OF THE INTERVIEW. (See MPEP Section 713.04). If a reply to the last Office action has already been filed, APPLICANT IS GIVEN ONE MONTH FROM THIS INTERVIEW DATE TO FILE A STATEMENT OF THE SUBSTANCE OF THE INTERVIEW.

Examiner Note: You must sign this form unless it is an attachment to another form.

DUANE SMITH
PRIMARY EXAMINER

[Signature]
7-10-03

Manual of Patent Examining Procedure, Section 713.04 Substance of Interview must Be Made of Record

Except as otherwise provided, a complete written statement as to the substance of any face-to-face or telephone interview with regard to an application must be made of record in the application, whether or not an agreement with the examiner was reached at the interview.

§1.133 Interviews

(b) In every instance where reconsideration is requested in view of an interview with an examiner, a complete written statement of the reasons presented at the interview as warranting favorable action must be filed by the applicant. An interview does not remove the necessity for reply to Office action as specified in §§ 1.111 and 1.135. (35 U.S.C. 132)

§ 1.2. Business to be transacted in writing. All business with the Patent or Trademark Office should be transacted in writing. The personal attendance of applicants or their attorneys or agents at the Patent and Trademark Office is unnecessary. The action of the Patent and Trademark Office will be based exclusively on the written record in the Office. No attention will be paid to any alleged oral promise, stipulation, or understanding in relation to which there is disagreement or doubt.

The action of the Patent and Trademark Office cannot be based exclusively on the written record in the Office if that record is itself incomplete through the failure to record the substance of interviews.

It is the responsibility of the applicant or the attorney or agent to make the substance of an interview of record in the application file, unless the examiner indicates he or she will do so. It is the examiner's responsibility to see that such a record is made and to correct material inaccuracies which bear directly on the question of patentability.

Examiners must complete a two-sheet carbon interleaf Interview Summary Form for each interview held after January 1, 1978 where a matter of substance has been discussed during the interview by checking the appropriate boxes and filling in the blanks in neat handwritten form using a ball point pen. Discussions regarding only procedural matters, directed solely to restriction requirements for which interview recordation is otherwise provided for in Section 812.01 of the Manual of Patent Examining Procedure, pointing out typographical errors or unreadable script in Office actions or the like, or resulting in an examiner's amendment that fully sets forth the agreement are excluded from the interview recordation procedures below.

The Interview Summary Form shall be given an appropriate paper number, placed in the right hand portion of the file, and listed on the "Contents" list on the file wrapper. In a personal interview, the duplicate copy of the Form is removed and given to the applicant (or attorney or agent) at the conclusion of the interview. In the case of a telephonic interview, the copy is mailed to the applicant's correspondence address either with or prior to the next official communication.

The Form provides for recordation of the following information:

- Application Number of the application
- Name of applicant
- Name of examiner
- Date of interview
- Type of interview (personal or telephonic)
- Name of participant(s) (applicant, attorney or agent, etc.)
- An indication whether or not an exhibit was shown or a demonstration conducted
- An identification of the claims discussed
- An identification of the specific prior art discussed
- An indication whether an agreement was reached and if so, a description of the general nature of the agreement (may be by attachment of a copy of amendments or claims agreed as being allowable). (Agreements as to allowability are tentative and do not restrict further action by the examiner to the contrary.)
- The signature of the examiner who conducted the interview
- Names of other Patent and Trademark Office personnel present.

The Form also contains a statement reminding the applicant of his responsibility to record the substance of the interview.

It is desirable that the examiner orally remind the applicant of his obligation to record the substance of the interview in each case unless both applicant and examiner agree that the examiner will record same. Where the examiner agrees to record the substance of the interview, or when it is adequately recorded on the Form or in an attachment to the Form, the examiner should check a box at the bottom of the Form informing the applicant that he need not supplement the Form by submitting a separate record of the substance of the interview.

It should be noted, however, that the Interview Summary Form will not normally be considered a complete and proper recordation of the interview unless it includes, or is supplemented by the applicant or the examiner to include, all of the applicable items required below concerning the substance of the interview:

A complete and proper recordation of the substance of any interview should include at least the following applicable items:

- 1) A brief description of the nature of any exhibit shown or any demonstration conducted;
- 2) an identification of the claims discussed,
- 3) an identification of specific prior art discussed,
- 4) an identification of the principal proposed amendments of a substantive nature discussed, unless these are already described on the Interview Summary Form completed by the examiner,
- 5) a brief identification of the general thrust of the principal arguments presented to the examiner. The identification of arguments need not be lengthy or elaborate. A verbatim or highly detailed description of the arguments is not required. The identification of the arguments is sufficient if the general nature or thrust of the principal arguments made to the examiner can be understood in the context of the application file. Of course, the applicant may desire to emphasize and fully describe those arguments which he feels were or might be persuasive to the examiner,
- 6) a general indication of any other pertinent matters discussed, and
- 7) if appropriate, the general results or outcome of the interview unless already described in the Interview Summary Form completed by the examiner.

Examiners are expected to carefully review the applicant's record of the substance of an interview. If the record is not complete or accurate, the examiner will give the applicant one month from the date of the notifying letter to complete the reply and thereby avoid abandonment of the application (37 CFR 1.135(c)).

Examiner to Check for Accuracy

Applicant's summary of what took place at the interview should be carefully checked to determine the accuracy of any argument or statement attributed to the examiner during the interview. If there is an inaccuracy and it bears directly on the question of patentability, it should be pointed out in the next Office letter. If the claims are allowable for other reasons of record, the examiner should send a letter setting forth his or her version of the statement attributed to him. If the record is complete and accurate, the examiner should place the indication "Interview record OK" on the paper recording the substance of the interview along with the date and the examiner's initials.

AMENDMENTS TO THE CLAIMS:

1. (Currently Amended) An air-permeable filter for an ink cartridge, said air-permeable filter comprising:

a laminate comprising:

at least one porous material layer comprising at least one resin selected from the group consisting of fluororesin and polyolefin resin; and

at least one air-permeable substrate layer having a tensile strength of 1 MPa or more; and having an outer surface bonded to said at least one porous material layer; and ;

one of a heat weld, ultrasonic weld, vibrational weld, and adhesive for bonding said at least one air-permeable substrate layer to said at least one porous material layer,

wherein a Gurley number of said air-permeable filter is less than 100 sec/100 ml.

2. (Currently Amended) The air-permeable filter for an ink cartridge according to claim 1, wherein said at least one air-permeable substrate layer comprises one of a nonwoven fabric, woven fabric, net, mesh, sponge, foam, porous metal, and metal mesh ~~the air permeability of said air-permeable substrate is 300 sec/100 ml or less as represented by Gurley number.~~

3. (Previously Amended) The air-permeable filter for an ink cartridge according to claim 1, wherein at least one layer of said laminate has been rendered water-repellent and oil-repellent.

4. (Previously Amended) The air-permeable filter for an ink cartridge according to claim 1, wherein said porous material comprises a polytetrafluoroethylene and said air-permeable substrate comprises a ultrahigh molecular weight polyethylene.

5. (Currently Amended) An ink cartridge comprising:
a case for receiving an ink;
at least one air vent in said case; and

an air-permeable filter provided in said at least one air vent, said air-permeable filter comprising:

a laminate comprising:

at least one porous material layer comprising at least one resin selected from the group consisting of fluororesin and polyolefin resin; and

at least one air-permeable substrate layer having a tensile strength of 1 MPa or more, and having an outer surface bonded to said at least one porous material layer; and

one of a heat weld, ultrasonic weld, vibrational weld, and adhesive for bonding said at least one air-permeable substrate layer to said at least one porous material layer,

wherein a Gurley number of said air-permeable filter is less than 100 sec/100 ml.

6. (Previously Amended) The air-permeable filter for an ink cartridge according to claim 1, wherein the tensile strength of the air-permeable substrate is from 1 Mpa to 1,500 Mpa.

7. (Previously Amended) The air-permeable filter for an ink cartridge according to claim 6, wherein the tensile strength of the air-permeable substrate is from 3 MPa to 500 Mpa.

8. (Previously Amended) The air-permeable filter for an ink cartridge according to claim 2, wherein the Gurley number of the air-permeable filter is from 0.1 sec/100 ml to less than 100 sec/100 ml.

9. (Previously Amended) The air-permeable filter for an ink cartridge according to claim 8, wherein the Gurley number of the air-permeable filter is from 0.5 sec/100 ml to less than 100 sec/100 ml.

10. (Previously Amended) The air-permeable filter for an ink cartridge according to claim 1, wherein the average diameter of the pores in the porous material is 10 μm or less.

11. (Previously Amended) The air-permeable filter for an ink cartridge according to claim 10, wherein the average diameter of the pores in the porous material is from 0.01 μm to 5 μm .

12. (Previously Amended) The air-permeable filter for an ink cartridge according to claim 1, wherein the thickness of the porous material is 2 μm or more.

13. (Previously Amended) The air-permeable filter for an ink cartridge according to claim 12, wherein the thickness of the porous material is from 10 μm to 1,000 μm .

14. (Currently Amended) The air-permeable filter for an ink cartridge according to claim 4, wherein the viscometric average molecular weight of the ultrahigh molecular weight polyethylene is 300,000 or more.

15. (Previously Amended) The air-permeable filter for an ink cartridge according to claim 14, wherein the viscometric average molecular weight of the ultrahigh molecular weight polyethylene is from 500,000 to 10,000,000.

16. (Previously Amended) The ink cartridge according to claim 5, wherein the porous material of the air-permeable filter faces an inner space of the ink cartridge.

17. (Currently Amended) An air-permeable filter comprising:

at least one porous material layer comprising at least one of a fluororesin and polyolefin resin; and

at least one air-permeable substrate layer having a tensile strength of 1 MPa or more, and having an outer surface bonded to said at least one porous material layer; and

one of a heat weld, ultrasonic weld, vibrational weld, and adhesive for bonding said at least one air-permeable substrate layer to said at least one porous material layer,

wherein a Gurley number of said air-permeable filter is less than 100 sec/100 ml.

18. (Previously Added) The air-permeable filter according to claim 17, wherein said air permeable substrate layer comprises ultrahigh molecular weight polyethylene.
19. (Previously Added) The air-permeable filter according to claim 17, wherein a Gurley number of the air-permeable filter is from 0.5 sec/100ml to less than 100 sec/100 ml.
20. (Previously Added) The air-permeable filter according to claim 17, wherein said at least one porous material layer is water-repellant and oil-repellant.
21. (Previously Added) The air-permeable filter according to claim 17, wherein said at least one air-permeable substrate layer is water-repellant and oil-repellant.
22. (Previously Added) The air-permeable filter according to claim 17, wherein said at least one porous material layer comprises two porous material layers, and wherein said at least one air permeable substrate layer is formed between said two porous material layers.
23. (Currently Amended) The ink cartridge ~~air-permeable filter~~ according to claim 5 ~~1~~, further comprising:
 - a cap portion inserted in said at least one air vent,
 - wherein said air permeable filter is affixed to said cap portion so as to cover said at least one air vent ~~which is connected to said laminate.~~
24. (Currently Amended) The ink cartridge ~~air-permeable filter~~ according to claim 23, further comprising:
 - one of a heat weld, ~~an ultrasonic weld~~, a vibrational weld, and an adhesive for affixing said air permeable filter ~~laminate~~ to said cap portion.
25. (New) The ink cartridge according to claim 5, wherein said air permeable filter is directly affixed to said case so as to cover said at least one air vent.

26. (New) The ink cartridge according to claim 5, wherein said at least one air vent comprises a plurality of air vents, and wherein at least one air vent in said plurality of air vents is not covered by ink in said ink cartridge.
27. (New) The air-permeable filter for an ink cartridge according to claim 1, wherein said at least one air-permeable substrate layer comprises a thickness of at least 0.5 mm.
28. (New) The air-permeable filter for an ink cartridge according to claim 1, wherein said at least one porous material layer comprises calcined polytetrafluoroethylene.
29. (New) The air-permeable filter according to claim 22, wherein said at least one porous material layer comprises a first porous material layer, and a second porous material layer which comprises a material which is different from a material in said first porous material layer.
30. (New) A method of manufacturing an air-permeable filter for an ink cartridge, said method comprising:
 providing at least one porous material layer comprising fluororesin; and
 laminating at least one air-permeable substrate layer having a tensile strength of 1 MPa or more, on said at least one porous material layer, said laminating comprising one of heat welding, ultrasonic welding, vibrational welding, and applying an adhesive, and
 wherein a Gurley number of said air-permeable filter is less than 100 sec/100 ml.
31. (New) The method according to claim 30, wherein said applying an adhesive comprises interposing a hot-melt adhesive between said at least one porous material layer and said at least one air-permeable substrate layer to form a laminate, and heating the laminate.